



*Montana Fish,
Wildlife & Parks*

March 6, 2001

1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Nongame Coordinator
Great Falls Office
Montana State Library, Helena
Montana Environmental Information Center
Montana Audubon Council
Teton County Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Teton River Watershed Group, 808 52nd St. South, Great Falls, MT 59405
Nature Conservancy, HC 58, Box 34B, Choteau, MT 59422
Mr. Clay Crawford, Box 466, Choteau, MT 59422

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to improve an irrigation diversion structure on the Teton River located approximately 10 miles northwest of the town of Choteau.

Please submit any comments that you have by 5 P.M., April 6, 2001 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of the project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
e-mail: mlere@state.mt.us

Teton

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Teton River Diversion Stabilization Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 that directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purposes of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal.

This project is being proposed to eliminate the need for annual or biennial bulldozing in the bed of the Teton River to obtain water for the Guthries diversion. The project calls re-creating a stable meander bend in the vicinity of the ditch heading using root wads, rocks and re-vegetation and for stabilizing channel grade by installing two vortex rock weirs.

I. Location of Project: This project will be conducted on the Teton River located approximately 10 miles northwest of the town of Choteau within Township 25 North, Range 7 West, Section 34 in Teton County (Attachment 1).

II. Need for the Project: One goal within Montana Department of Fish, Wildlife and Parks six-year plan of operation for the fisheries program is to "restore and enhance degraded habitats" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help achieve this goal.

Currently, the irrigators on the Guthries diversion must bulldoze the bed of the Teton River annually or biennially in the vicinity of their ditch heading to insure adequate water for the ditch users. The gravel berm that is created acts to increase sediment loading and de-stabilizes the bed of the river. Additionally, this annual dozer work has led to the loss of riparian vegetation that has further accelerated channel instability. Stabilization of this diversion heading will reduce the need for annual maintenance and will act as a demonstration project for irrigators on numerous other problem diversions located on this reach of river.

III. Scope of the Project: The proposal calls for restoring the dimension, pattern and profile of approximately 1,200 feet of river channel at the heading of the Guthries diversion to create a stable meander bend (Attachment 2). The multi-channeled river would be converted to a single thread channel by filling in side channels to floodplain level. The grade of the floodplain would be stabilized with the placement of brush bars and logs. Stream banks would be stabilized using root wads, rock and re-vegetation. Two vortex rock weirs, one upstream and one downstream of the ditch heading, would be installed to stabilize channel grade and to insure adequate water to the ditch. Construction oversight will be provided by personnel from the Teton River Watershed Group and a private consultant. The project is expected to cost \$26,580.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$8,980.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Keeping heavy machinery from annually entering the Teton River at this site will help maintain the integrity of the stream bed, stream banks and riparian vegetation in the vicinity of this ditch heading. Consequently, the project is expected to improve habitat for aquatic invertebrates and fishes. Additionally, eliminating trampling by heavy machinery and planting woody shrubs on the stream bank and on the floodplain are expected to improve habitat for riparian dependent wildlife,

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 310 permit will be obtained from the local Conservation District and the U.S. Army Corp of Engineers will be contacted for requirements needed to meet the federal Clean Water Act (404 permit). In the long term, eliminating the need to annually bulldoze a gravel berm within the active channel is expected to reduce turbidity and sediment contributions to downstream waters. The quantity of water diverted into the ditch would remain unchanged. This reach of the Teton River experiences severe de-watering on a frequent basis.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during project construction, but would be stabilized with proposed re-vegetation efforts. The proposed project would eliminate past annual disturbances created by bulldozing a gravel berm in the channel to obtain ditch water. Rock structures, if improperly installed, can reduce channel capacity and cause channel over-widening. However, the proposal calls for low elevation structures placed in a two tiered design, with each structure designed as an upstream pointed "V". This design, in addition to restoring the channel to a single thread with a proper dimension, pattern and profile, is expected to minimize the possibility of channel over-widening following structure installation.

4. Vegetation cover, quantity and quality.

Some riparian vegetation would be disturbed during project construction. However, the proposed project is intended to eliminate the need for annual maintenance of this ditch heading, allowing the riparian vegetation to recover from past disturbances. One of the goals of the project is to restore the riparian vegetation community within the vicinity of the ditch heading by stabilizing the channel and by planting woody vegetation on the stream banks and floodplain.

5. Aesthetics.

Eliminating the annual construction of an in-channel gravel berm is expected to enhance aesthetics within the vicinity of the ditch heading. The intent of the project is to create a more natural stream environment.

9. Historic and archaeological sites.

The proposed project will likely require an individual Army Corp of Engineers (COE) 404 permit. Therefore, the State Historic Preservation Office will be contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

13. Locally adopted environmental plans and goals.

The Teton River Watershed Group, a local watershed effort, contracted with a private company in 1999 to evaluate ways to effectively maintain diversion structures and reduce erosion on the Teton River. To ensure a comprehensive approach, a thorough review of all diversions within a 10-mile reach of the river was undertaken and results were presented and discussed with the effected irrigators. A decision was made by the watershed group and irrigators to move forward with work on two diversions to test this proposed restoration work. If proven effective, the intent is to conduct similar work on the remaining diversions located within this 10-mile reach of river. This proposed project focuses on a single diversion.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the bed of the Teton River will continue to be bulldozed into a gravel berm on an annual basis. This activity will continue to de-stabilize the channel of the river, contribute to turbidity, damage riparian vegetation and interfere with fish passage.

2. The Proposed Alternative

The proposed alternative would eliminate the need for annually bulldozing a gravel berm in the river to obtain water for the ditch. Elimination of this activity would improve channel stability and water quality, protect riparian vegetation and augment fish passage. Additionally, the proposed alternative would act as a demonstration project to encourage irrigators to address numerous other problem diversions on the river.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement program. The proposed project will also be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA also will be published on Montana Fish, Wildlife and Parks web page: fwp.state.mt.us.

3. Duration of comment period?

Public comment will be accepted through 5 P.M. on April 6, 2001.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Montana Department of Fish, Wildlife and Parks
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Helena, MT 59620

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MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
 1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
 (406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Teton River Diversion Stabilization Project

Division/Bureau Fisheries Division - Future Fisheries Improvement
 Description of Project The proposal calls for stabilizing the Teton River located in the vicinity of the Guthries diversion by restoring the dimension, pattern and profile of the channel; installing two vortex rock weirs into the channel; and enhancing the riparian vegetative community. This proposed project would act to alleviate the need for annual or biennial bulldozing in the bed of the Teton River to obtain water for the Guthries diversion.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities				X		
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals			X			X
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping

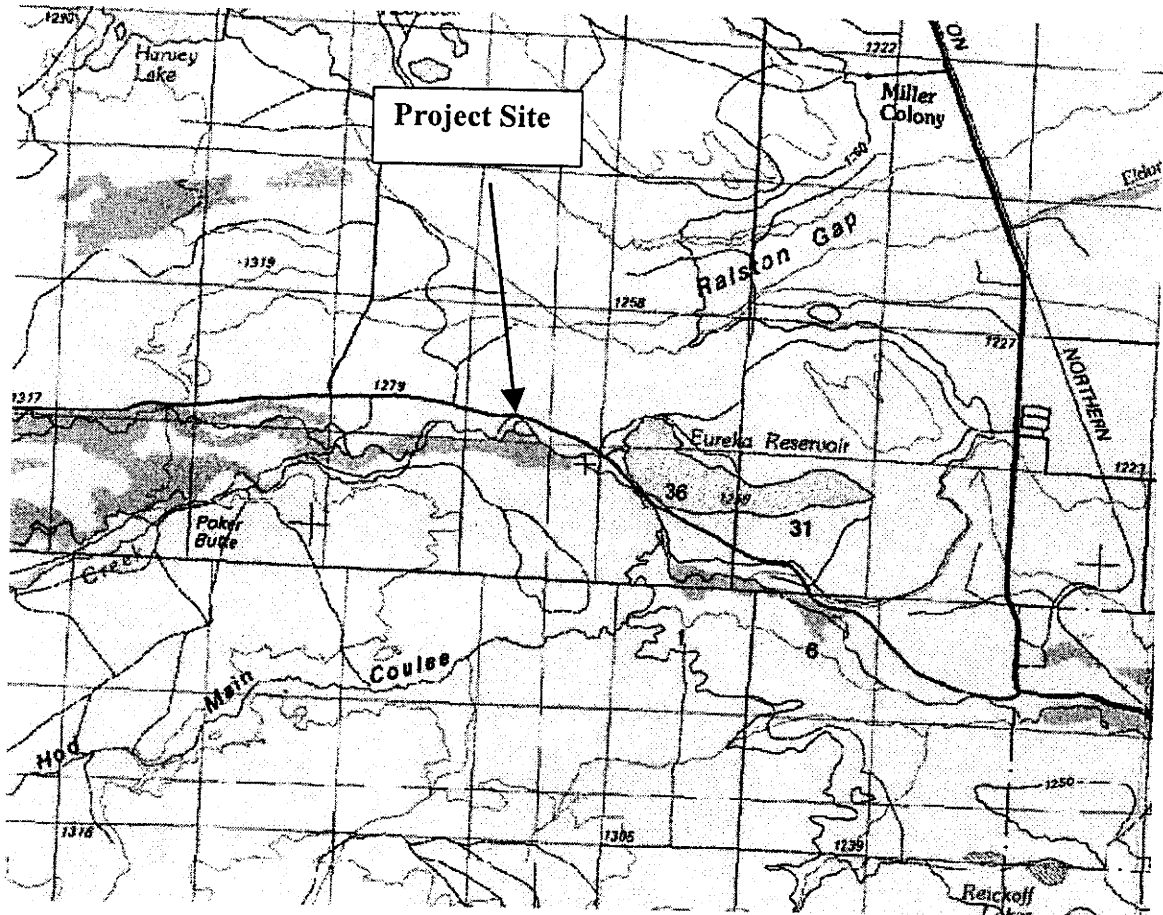
jurisdiction Teton County Conservation District, US Fish and Wildlife
Service, US Army Corp of Engineers, Department of Environmental
Quality, State Historic Preservation Office.

Individuals or groups contributing to this EA Alan Rollo, Teton River
Watershed Group: Watershed Consulting, Inc.

Recommendation concerning preparation of EIS No EIS required.

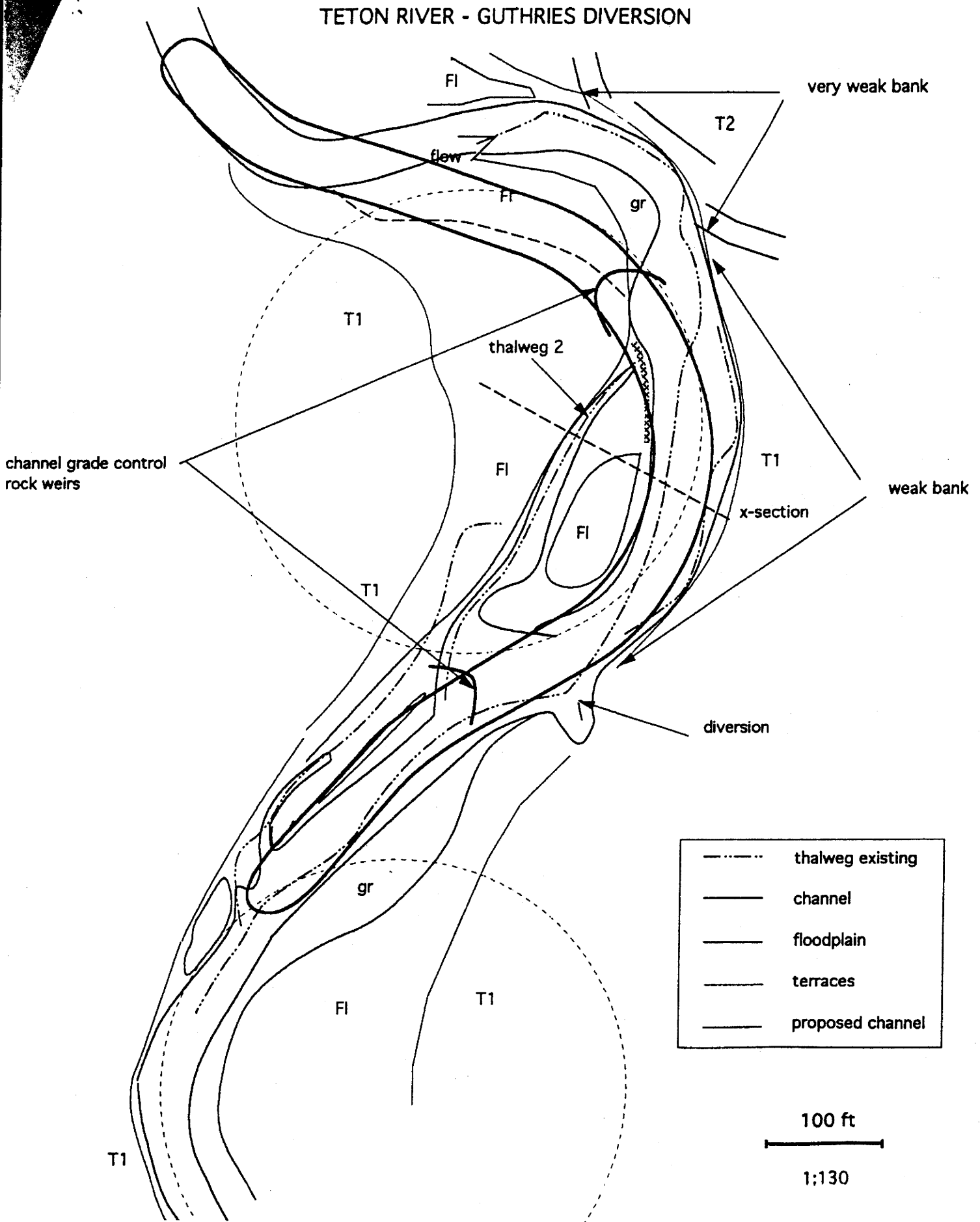
EA prepared by: Mark Lere

Date: February 21, 2001



Attachment 1. Map showing project location on the Teton River.

TETON RIVER - GUTHRIES DIVERSION



Attachment 2. Planer view of the proposed project on the Guthries diversion.